**Statement of Robert A. DeLoach**
**General Manager/CEO**
**Cucamonga Valley Water District**
**and**
**Chairman of the Chino Basin Watermaster's Water Quality Committee**

Testimony
Before the Committee on Resources
Subcommittee on Water and Power
United States House of Representatives

H.R. 4606
To authorize the Secretary of the Interior, acting through the Bureau of Reclamation and in coordination with other Federal, State, and local government agencies, to participate in the funding and implementation of a balanced, long-term groundwater remediation program in California and for other purposes.

June 23, 2004

Introduction

Chairman Calvert, Ranking Member Napolitano and distinguished members of the Subcommittee. I am Robert DeLoach, the General Manager and Chief Executive Officer for the Cucamonga Valley Water District located in the City of Rancho Cucamonga, California (San Bernardino County). I am also the Chairman of the Chino Basin Watermaster's Water Quality Committee. Thank you for the opportunity to appear before you today.

The Cucamonga Valley Water District, the Inland Empire Utilities Agency, and the Chino Basin Watermaster strongly support H.R. 4606, and urge its markup without amendment.

The Cucamonga Valley Water District ("CVWD") is a retail water and sewer agency located within the Inland Empire region of western San Bernardino County and the greater Santa Ana Watershed. Our agency currently provides water and waste-water services to more than 160,000 people within in a 47 square mile service area. According to a United States Census Bureau report released last year, the City of Rancho Cucamonga was identified as the third fastest growing city in the nation with a population of over 100,000. Over the past five years our agency has averaged over 1,000 new customer connections for water and sewer service annually. By the year 2020 our population is expected to reach approximately 230,000.

Our water supply is derived from three sources. Our primary source of water (55%) is also our most expensive source--that being imported water from the State Water Project through the Inland Empire Utilities Agency, a member agency of the Metropolitan Water District of Southern California. The balance is made up of groundwater (35%) and surface water from the local San Gabriel Mountains (15%).

Our service area overlies a portion of one of the largest groundwater basins in the State, the Chino Basin. The Chino Basin is an adjudicated groundwater basin governed by a court appointed Watermaster which is charged with the management responsibility to oversee the needs of not only urban demands but agricultural and industrial uses as well. The Chino Basin is home to the largest confined feeding operation for dairy cows in the nation.

The many retail water agencies throughout the Chino Basin region of the Santa Ana Watershed provide both water and sewer service to the Cities of Rancho Cucamonga, Corona, Fontana, Ontario, Rialto, Upland, Chino, Chino Hills, Montclair, Pomona and the unincorporated areas of San Bernardino County. By

2020 the estimated population of the Inland Empire region will be in excess of one million people. Water agencies throughout the almost 2000 square mile service area of the Santa Ana Watershed Project Authority (SAWPA) are heavily dependent on local groundwater supplies from underground aquifers such as the Chino Basin for an adequate supply of high quality drinking water.

Impacts on the Santa Ana Watershed resulting from Federal Policies and Actions

Throughout all of Southern California, and specifically in our case the Santa Ana Watershed ("SAW"), imported water deliveries are being reduced at a time when water demand is increasing. Actions by the Federal Government have reduced deliveries from the Colorado River to Southern California, and specifically the Metropolitan Water District of Southern California, by 500,000 acre feet annually from 1.2 million acre feet to 0.7 million acre feet. At the same time, Federal actions and polices associated with the CALFED program have in part played a critical role in reducing water supplies from the Bay Delta and the California State Water Project to southern California. Both of these actions place a greater reliance on groundwater supplies and other sources of water such as recycled water.

In addition to the requirement that Southern California adjust to the new reality of reduced imported water deliveries, our ability to produce adequate supplies of groundwater is being threatened by contamination due in large part to the actions of the Federal Government. The two primary federal legacy sources of groundwater contamination are perchlorate and volatile organic compounds (VOC's). Perchlorate and in many cases VOC contamination in the SAW have been linked directly to past military (Department of Defense) or aerospace industry (NASA) activities, which used ammonium perchlorate and potassium perchlorate in manufacturing and testing of solid rocket propellants. These federal activities account for approximately 90% of the known perchlorate in our drinking water wells, according to academic and government experts. There is also a possible link to the manufacturing of pyrotechnics and other products, such as agricultural fertilizers. A known and defined VOC plume is currently threatening groundwater supplies within the lower Chino Basin region in and around the Chino Airport resulting from its past use serving military aircraft.

The Chino Basin is not the exception when it comes to perchlorate and VOC contamination. Of the 41 basins within the SAW, 16 have Federal related perchlorate contamination. Recent research within the SAW indicates that perchlorate has been detected in over 170 municipal drinking water supply wells and the number appears to be growing. In the CVWD's wells alone, 9 of 23 wells used for municipal drinking water have detectable amounts of perchlorate. Within the SAW there are four distinct groundwater plumes that are referenced in Figure 1 of a draft report prepared by SAWPA entitled; Perchlorate Summary Report for the Santa Ana Watershed Area. The report further outlines, in specific detail, the impacts to the various retail water providers in the SAW.

In addition to the limitations noted previously on the present and future delivery of imported water to the region either from the Colorado River or from the State Water Project, the ability for retail water providers to actually increase their imported water deliveries is in many instances limited by the physical characteristics of their respective delivery systems. In the case of the City of Rialto located in San Bernardino County, five of the city's wells are contaminated with perchlorate affecting approximately 9,600 gallons per minute (GPM), and they are without an alternate source of supply because they do not have a connection to either the State Project System or the Colorado River. Their only source of water is from groundwater.

It should be further noted that recycled water plays a major role in meeting the needs of the SAW and is being threatened by the actions and policies of the Federal Government as well. The development of new recycled water supplies is the most significant new supply to the Santa Ana River watershed. Approximately 250,000 acre feet per year of new recycled water supplies have been identified in the SAWPA Integrated Watershed Plan. Our ability to continue to develop this reliable, drought-proof source of water for non-potable uses such as agriculture, landscape, and manufacturing uses will become increasingly difficult due to the Department of the Interior's initiative to eliminate the Title XVI water recycling program, which we have historically depended on to assist in funding recycled water programs.

State of California Actions

Earlier this year the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment announced that they had established a Public Health Goal (PHG) for perchlorate. A PHG

establishes a minimum standard by which any constituent in drinking water does not pose a significant human health risk and is the first step in addressing the presence of perchlorate in the State's drinking water. The PHG for perchlorate was set at 6 parts per billion (ppb). It should be noted that the PHG is not a regulatory requirement and may be revised by the Office of Environmental Health Hazard Assessment once the National Academy of Sciences releases their report later this year.

Current State law requires that the California Department of Health Services (DHS) set a regulatory drinking water standard for perchlorate that is as close to the PHG as is "economically and technically feasible." The regulatory standard for perchlorate should be set later this year.

Remediation Technology and the Cost Impact to Ratepayers

Most experts agree that perchlorate has existed in our drinking water supplies for many years, but has gone largely undetected due to the lack of sophisticated detection technology. In 1997, technology improved to the point that laboratories could reliably detect and identify perchlorate as low as 4 ppb, and the technology continues to improve. As a result, our ability to fully understand the full impact of the health effects of low-level exposure to perchlorate is emerging.

Clean-up and remediation of perchlorate or VOC contaminated groundwater supplies are in may instances cost prohibitive for many retail agencies to manage. The approved technology for clean-up or remediation is somewhat limited as well. The physical properties that make up perchlorate allow it to spread very rapidly, contaminating large volumes of water. Perchlorate is, for the most part, non-biodegradable which makes traditional methods of groundwater "cleanup" impractical due to the immense volumes of water that must be pumped and treated. Instead, municipal water purveyors are opting for remediation at the wellhead to treat the water for human consumption. The most common approach to treating perchlorate approved by the State of California Department of Health Services is Ion Exchange technology.

A survey of many of the affected municipal water agencies throughout the SAW indicates that the average capital cost to install Ion Exchange wellhead treatment technology on a single well is $1.0 million with an annual operating cost of approximately $400,000. Projected across the entire watershed, the costs to maintain existing production could range from $300 million upwards to $1 billion. It is important to note that this investment would not produce a single drop of new water; it would merely protect what is already in production. Ratepayers throughout the SAW are being asked to unreasonably underwrite the entire cost to treat and deliver water contaminated with perchlorate and VOC's as a result of the Federal Government's actions and policies.

To date, the sources of outside funding for the SAW have been somewhat limited. Pursuing the responsible parties for the contamination is extremely time consuming and costly and does not provide immediate relief from the contamination in order to continue meeting the drinking water demands of the consumer. The State of California has established a Cleanup and Abatement Account which is administered by the State Water Resources Control Board. The funding for the account is derived from penalties and charges collected from cleanup and abatement actions and results in very limited funding. To date, only $3 million has been provided to retail water providers. An additional $3 million was provided through a voter approved State initiative, Proposition 50.

There continues to be much debate today as to the health effects of perchlorate on the human body and even as to the source of the perchlorate in our drinking water supplies. Due to the inaction on the part of the Federal Government and in particular the Department of Defense (DOD), the burden of proof has been placed on the local water agencies to first prove that DOD or one of their contractors was the contributing entity to perchlorate in the groundwater, and then to prove that perchlorate is harmful to human health at various levels. The lack of a current standard or the preciseness of a health effect or safety regulation is not justification for inaction on the part of the Federal government. This is simply not acceptable. We are asking that the Federal Government accept responsibility for the perchlorate in the SAW and develop a contamination clean up plan. It is important to note that the Senate has recently accepted an amendment to the DOD Authorization Bill to develop such a plan.

The Department of Defense Today

For the past year the Cucamonga Valley Water District has been meeting and working with officials from the

Department of Defense. In July of last year our agency hosted a meeting with California State Senator Nell Soto, representatives from other local water agencies, Mr. J.P. Woodley, then Assistant Under-Secretary of Defense for Installations and Environment, and other federal officials to discuss the impacts of perchlorate to the region and specifically the Chino Basin. As a result of the meeting, a Memorandum of Understanding was executed between the local water interests and DOD which stated that we would mutually work to solve the problem of contaminated groundwater.

DOD has shown considerable interest in evaluating new technologies that will treat contaminated groundwater “better, faster, greener and cheaper.” This is a positive first step and we remain optimistic that over time we may be able to reclaim lost water production and arrest the spread of perchlorate in the watershed.

It should be pointed out, however, that not all within DOD are anxious to address the problem of groundwater contamination. It has been my experience over this past year that internally, within the confines of DOD, they are divided over this issue. It appears the problem is one that is woven into the culture of the DOD. On one side we have seen those that would pursue a tactic of deflect responsibility, defer blame and delay--any tactic that avoids responsibility for DOD cleanup is seen as appropriate. Accountability is avoided at any cost.

There is another perspective within DOD among some of the senior officials that we have met with over this past year and are represented by the Office of the Under-Secretary of Defense for Installations and Environment. During our meetings we have found them to be open to the concept that DOD has a responsibility for perchlorate and VOC cleanup within the SAW. We have had open and earnest discussions on finding new ways, new methods and different approaches to addressing the issue of groundwater contamination beyond the conventional wisdom of existing technology–that which is “better, faster, greener and cheaper.” It is important to note that in October of last year, DOD released a new policy, emanating from the Office of the Deputy Under-Secretary for Defense for Installations and Environment--a new policy that required that DOD take all necessary steps to investigate and invest in new technology to address the perchlorate contamination problem. Furthermore, DOD established a new initiative, an interim sampling policy that directs DOD and all of its Components to “determine the extent of perchlorate occurrence. The Components of the DOD will sample where likelihood of DOD produced perchlorate exists and a pathway to drinking water is likely.” In addition, this policy directs the Components to continue to develop new technologies for treatment and cleanup of perchlorate.

The Cucamonga Valley Water District Proposal

CVWD is very supportive of DOD’s initiative to test and evaluate new technologies. In October of last year we submitted a project proposal to DOD along with our project development partner LightStream Technologies, Inc., for $500,000 to test and evaluate the effects of high intensity Pulsed Ultra Violet light (PUV) on perchlorate in water. The proposal was received with considerable interest and we are optimistic that we will proceed later this year. While neither our agency nor LightStream claim that advanced PUV can and will destroy perchlorate in water, this technology can not be dismissed in light of the potential for large scale cost savings compared with conventional treatment utilizing Ion Exchange. It is our opinion that DOD should investigate and test any and all treatment technologies rather than accept that treatment is limited to existing technology.

Our agency is proposing that PUV be tested and evaluated under the guidance of DOD, the Environmental Protection Agency and the DHS, and other entities on a groundwater well in the Chino Basin that is contaminated with perchlorate. CVWD will provide the land, the water source, a power supply and reasonable management and operational oversight during the evaluation period. We believe that Congress can and should provide the directive to the DOD to proceed with this project and any other initiative to confront the issue of perchlorate contamination. This, in our view, is the beginning of new policies and actions by the Federal Government.

The Baca Bill, HR 4606

The Baca Bill (HR 4606) proposes to authorize the Secretary of the Interior, acting through the Bureau of Reclamation and in coordination with other Federal, State and local agencies, to participate in the funding and implementation of a balanced, long-term groundwater remediation program in California. We are supportive of this bill because it would commit the Federal Government to provide funding assistance to

water agencies and communities who are trying to protect and reclaim valuable water supplies through existing and innovative technologies.

The bill will establish a Southern California Remediation fund which will provide much needed grants to local water authorities to reimburse the local water authority for the Federal share of costs associated with designing and constructing groundwater remediation projects. This will allow water agencies and communities like CVWD to leverage local funds to further develop projects to protect, treat and reclaim our valuable groundwater supplies.

In conclusion, Mr. Chairman, CVWD extends its appreciation to you, members of the Subcommittee, and especially to Chairman Pombo for his initiative and Representatives Baca, Napolitano, Miller, and other members of the House for their introduction and support of this Bill.

We urge the Committee to proceed with mark up of the Bill as soon as possible, and request the Interior Department's request for funding in the fiscal year 2006 funding cycle.